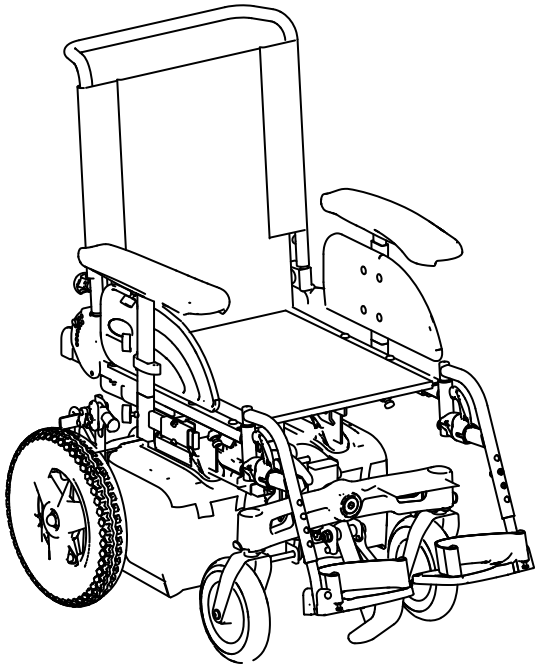

Invacare® Fox™

EN **Power wheelchair**
User Manual

CE

This manual MUST be given to the user of the product.
BEFORE using this product, read this manual and save for future reference.

INVACARE

Yes, you can.

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1 General

1.1 Introduction

Dear user,

First we would like to thank you for purchasing our product! We hope that you will have a great deal of pleasure with your new mobility device.

This user manual contains important information and notes about:

- **Safety**
- **Operation**
- **Care and maintenance**

Please take care to read the user manual thoroughly before starting out on your first journey.

If you find that the font size in the print version of the user manual is difficult to read, you can download it as a pdf from the Invacare website. This can then be scaled on screen to a font size that is more comfortable for you.

This mobility device has been constructed for a large circle of users with different requirements.

The decision whether the model is suitable for the user may only be taken by medical specialists with appropriate expertise.

Invacare or their statutory representatives can accept no liability in cases in which the mobility device has not been adapted to suit the users' handicaps.

Some maintenance and settings can be performed by the user or his/hers attendants. Certain adjustments do however require technical training and may only be carried out by your Invacare specialist dealer. Damages and errors caused by nonobservance of the user manual or as a result of incorrect maintenance are excluded from all guarantees.

This manual contains copyrighted information. This manual may not be reproduced or reprinted either partly or completely without previous written consent from Invacare or its statutory representatives. We reserve the right to make any necessary alterations on the grounds of technical improvements.

1.2 Symbols in this manual

In this user manual warnings are indicated by symbols. The warning symbols are accompanied by a heading that indicates the severity of the danger.

WARNING
Indicates a hazardous situation that could result in serious injury or death if it is not avoided.

CAUTION
Indicates a hazardous situation that could result in minor or slight injury if it is not avoided.

IMPORTANT
Indicates a hazardous situation that could result in damage to property if it is not avoided.

Gives useful tips, recommendations and information for efficient, trouble-free use.

This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.

Requirements:

This symbol identifies a list of various tools, components and items which you will need in order to carry out certain work. Please do not attempt to carry out the work if you do not have the listed tools available.

1.3 Type classification and intended use

This vehicle was designed for persons whose ability to walk is impaired, but who are still in terms of their eyesight and physically and mentally able to operate an electric vehicle. It has been classified according to EN 12184 as a **class B mobility product** (for indoor and outdoor areas). It is therefore compact and agile enough for indoor areas, but also able to overcome many obstacles in outdoor areas.

You can find precise information about speed, turning radius, driving range, maximum safe slope, maximum obstacle height and permissible operating conditions in chapter 13 Technical data, page 57.

Also pay attention to all safety information in chapter 2 Safety, page 9 .

The vehicle was successfully tested according to German and international standards as to its safety. It satisfies the requirements according to RoHS 2011/65/EU, REACH 1907/2006/EC and DIN EN 12184 including EN 1021-1/-2. It was also tested successfully according to EN60529 IPX4 as to its resistance to spray water, and is therefore well suited for weather conditions such as typical European weather conditions. When equipped with an appropriate lighting system, the vehicle is suitable for use on public roads.

1.4 Indications

The use of this mobility product is recommended for the following indications:

The inability or a greatly restricted ability to walk within the scope of the basic requirement to be able to move within one's own four walls. The need to leave the dwelling place in order to get some fresh air during a short walk or to reach those places generally to be found at close distance to the dwelling and where everyday business is carried out.

Provision of power wheelchairs for interior and exterior areas is advisable if the use of hand-operated wheelchairs is no longer possible on account of the disability, yet proper operation of an electromotive drive unit is still practicable.

1.5 Usability

Only use a mobility device when it is in perfect working order. Otherwise, you might put yourself and others at risk.

The following list does not claim to be exhaustive. It is only intended to show some of the situations that could affect the usability of your mobility device.

In certain situations, you should immediately stop using your mobility device. Other situations allow you to use the mobility device to get to your dealer.

- You should immediately stop using your mobility device if its usability is restricted due to:
  - brake failure

- You should immediately contact an authorised Invacare dealer if the usability of your mobility device is restricted due to:
  - the lighting system (if fitted) failing or being defective
  - reflectors falling off
  - worn thread or insufficient tire pressure
  - damage to the armrests (e.g. torn armrest padding)
  - damage to the legrest hangers (e.g. missing or torn heel straps)
  - damage to the postural belt
  - damage to the joystick (joystick cannot be moved into the neutral position)
  - cables that are damaged, kinked, pinched or have come loose from the holder
  - the mobility device drifting when braking
  - the mobility device pulling to one side when moving
  - unusual sounds developing or occurring

  Or if you have the feeling that something is wrong with your mobility device.

1.6 Warranty

The terms and conditions of the warranty are part of the general terms and conditions particular to the individual countries in which this product is sold.

1.7 Service life

We estimate a service life of five years for this product, provided it is used in strict accordance with the intended use as set out in this document and all maintenance and service requirements are met. The estimated service life can be exceeded if the product is carefully used and properly maintained, and provided technical and scientific advances do not result in technical limitations. The service life can also be considerably reduced by extreme or incorrect usage. The fact that we estimate a service life for this product does not constitute an additional warranty.

2 Safety

2.1 General safety notes

WARNING!
Risk of injury if mobility device is used in any other way than the purpose described in this manual
– Only ever use the mobility device in accordance with the instructions in this user manual (refer to1.3 Type classification and intended use, page 7).
– Pay strict attention to the safety information.

Risk of injury if the mobility device is driven when ability to operate a vehicle is impaired by medication or alcohol
– Never drive the mobility device under the influence of medication or alcohol. If necessary, the mobility device must be operated by an attendant who is physically and mentally able.

WARNING!
Risk of damage or injury if mobility device is accidentally set into motion
– Switch the mobility device off before you get in, get out or handle unwieldy objects.
– When the drive is disengaged, the brake inside the drive is deactivated. For this reason, pushing the mobility device by an attendant is only recommended on flat surfaces, never on gradients. Never leave your mobility device on a gradient with its motors disengaged. Always re-engage the motors immediately after pushing the mobility device (refer to Pushing the mobility device in freewheel mode).

Risk of injury if the mobility device is switched off while driving, for example by pressing the On/Off Button or disconnecting a cable, due to it coming to an abrupt, sharp stop
– If you have to brake in an emergency, simply release the joystick which will bring you to a halt (refer to the remote user manual for more information).

WARNING!

Risk of injury when transferring mobility device to a vehicle for transport with the occupant seated in it

– It is always better to transfer the mobility device to a vehicle without the occupant seated in it.
– If the mobility device needs to be loaded up a ramp together with its driver, ensure that the ramp does not exceed the maximum safe slope (refer to 13 Technical data, page 57).
– If the mobility device does need to be loaded using a ramp which exceeds the maximum safe slope (refer to 13 Technical data, page 57), then you must use a winch. An attendant can safely monitor and assist the loading process.
– As an alternative you can use a platform lift. Ensure that the total weight of the mobility device including the user does not exceed the maximum permissible weight for the platform lift or winch if you are using.

Risk of falling out of the mobility device

– Do not slide forward on the seat, do not lean forward between your knees, do not lean backwards out over the top of the backrest, for example to reach an object.
– If a posture belt is installed, it should be correctly adjusted and used each time you use the mobility device.
– When transferring to a different seat, position the mobility device as close as possible to the new seat.

CAUTION!

Risk of injury if maximum permissible load is exceeded

– Do not exceed the maximum permissible load (refer to 13 Technical data, page 57).
– The mobility device is only designed for use by a single occupant whose maximum weight does not exceed the maximum permissible load of the device. Never use the mobility device to transport more than one person.

Risk of injury due to wrong lifting or dropping of heavy components

– When maintaining, servicing or lifting any part of your mobility device, take into account the weight of the individual components especially the batteries. Be sure at all times to adopt the correct lifting posture and ask for assistance if necessary.

Risk of injury by moving parts

– Make sure that no injury is incurred by moving parts of the mobility device, like wheels or one of the lifter modules (if fitted), especially when children are around.

Risk of injury from hot surfaces

– Do not leave the mobility device in direct sunlight for prolonged periods. Metal parts and surfaces such as the seat and armrests can become very hot.

CAUTION!
Risk of fire or breaking down due to electric devices being connected
– Do not connect any electric devices to your mobility device that are not expressly certified by Invacare for this purpose. Have all electrical installations done by your authorised Invacare dealer.

2.2 Safety information with regard to care and maintenance

CAUTION!
Risk of accident and loss of guarantee if maintenance is insufficient
– For reasons of safety and in order to avoid accidents which result from unnoticed wear, it is important that this electric mobility product undergoes an inspection once every year under normal operating conditions (see inspection plan contained in service instructions).
– Under difficult operating conditions such as daily travel on steep slopes, or in the case of use in medical care cases with frequently changing wheelchair users, it would be expedient to carry out intermediate checks on the brakes, accessories and running gear.
– If the mobility product is to be operated on public roads, the vehicle driver is responsible for ensuring that it is in an operationally reliable condition. Inadequate or neglected care and maintenance of the mobility product will result in a limitation of the manufacturer's liability.

2.3 Safety information on electromagnetic interference

This electric vehicle was successfully tested in accordance with International standards as to its compliance with Electromagnetic Interference (EMI) regulations. However, electromagnetic fields, such as those generated by radio and television transmitters, and cellular phones can influence the functions of electric vehicles. Also, the electronics used in our vehicles can generate a low level of electromagnetic interference, which however will remain within the tolerance permitted by law. For these reasons we ask you to please observe the following precautions:

WARNING!
Risk of malfunction due to electromagnetic interference
– Do not switch on or operate portable transceivers or communication devices (such as radio transceivers or cellular phones) when the vehicle is switched on.
– Avoid getting near strong radio and television transmitters.
– In case the vehicle should be set in motion unintentionally or the brakes are released, switch it off immediately.
– Adding electrical accessories and other components or modifying the vehicle in any way can make it susceptible to electromagnetic interference. Keep in mind that there is no sure way to determine the effect such modifications will have on the overall immunity of the electronic system.
– Report all occurrences of unintentional movement of the vehicle, or release of the electric brakes to the manufacturer.

2.4 Safety information on driving and freewheel mode

WARNING!
Risk of injury if the mobility device tips over
- Inclines and declines can only be travelled up to the maximum safe slope (refer to 13 Technical data, page 57).
- Always return the backrest of your seat or the seat tilt to an upright position before ascending slopes. We recommend that you position the seat backrest and the seat tilt (if fitted) slightly to the rear before descending slopes.
- Only ever drive downhill at a maximum of 2/3 of the top speed. Avoid abrupt braking or accelerating on gradients.
- If at all possible, avoid driving on slippery surfaces (such as snow, gravel, ice etc.) where there is a risk of you losing control over the vehicle, especially on a gradient. If driving on such a surface is inevitable, then always drive slowly and with the utmost caution.
- Never attempt to overcome an obstacle when on an uphill or downhill gradient.
- Never attempt to drive up or down a flight of steps with your mobility device.
- When overcoming obstacles, always observe the maximum obstacle height (refer to 13 Technical data, page 57 and information about overcoming obstacles in 5.3 Taking Obstacles, page 22).
- Avoid shifting your center of gravity as well as abrupt joystick movements and changes of direction when the mobility device is in motion.

WARNING!
Risk of injury if the mobility device tips over (continued)
- Never use the mobility device to transport more than one person.
- Do not exceed the overall maximum permissible load or the maximum load per axle (refer to 13 Technical data, page 57).
- Note that the mobility device will brake or accelerate if you change the driving mode whilst the mobility device is in motion.

WARNING!
Risk of breaking down in adverse weather conditions, i.e. extreme cold, in an isolated area
- If you are a user with severely limited mobility, we advise that in the case of adverse weather conditions DO NOT attempt a journey without an accompanying attendant.

WARNING!
Risk of injury if your foot slides off the footrest and gets caught underneath the mobility device when it is in motion
- Make sure each time before you drive the mobility device that your feet are squarely and securely in place on the footplates, and that both legrests are properly locked into place.

WARNING!
Risk of injury if you collide with an obstacle when driving through narrow passages such as doorways and entrances
– Drive through narrow passages in the lowest driving mode and with due caution.

WARNING!
If your mobility device has been fitted with elevating legrests, there is a risk of personal injury and damage to the mobility device if you drive the mobility device with the legrests raised
– To avoid unwanted displacement of the mobility device center of gravity to the front (especially when travelling downhill) and in order to avoid damage to the mobility device, elevating legrests must always be lowered during normal travelling.

WARNING!
Tipping hazard if antitippers are removed, damaged or changed to a position different to the factory settings
– Antitippers should only ever be removed for dismantling the mobility device for transport in a vehicle or for storage.
– The antitippers must always be fitted if the mobility device is being used.

WARNING!
Risk of tipping
Antitippers (stabilizers) are only effective on firm ground. They sink in on soft ground such as grass, snow or mud if the mobility device rests itself on them. They lose their effect and the mobility device can tip over.
– Only drive with extreme care on soft ground, especially during uphill and downhill journeys. In the process pay increased attention to the tip stability of the mobility device.

2.5 Safety information regarding changes and modifications to the mobility device

CE marking of the mobility device
– The conformity assessment/CE marking was carried out in accordance with Directive 93/42 EEC and only applies to the complete product.
– The CE marking is invalidated if components or accessories are replaced or added that have not been approved for this product by Invacare.
– In this case, the company that adds or replaces the components or accessories is responsible for the conformity assessment/ CE marking or for registering the mobility device as a special design and for the relevant documentation.

CAUTION!

Risk of injuries and damage to mobility aid due to unapproved components and accessory parts

Seating systems, additions and accessory parts which have not been approved by Invacare for use with this mobility aid can affect the tipping stability and increase tipping hazards.

– Only ever use seating systems, additions and accessory parts which have been approved by Invacare for this mobility aid.

Seating systems which are not approved by Invacare for use with thismobility device do not, under certain circumstances, comply with the valid standards and could increase the flammability and the risk of skin irritation.

– Only use seating systems that have been approved by Invacare for this mobility device.

Electrical and electronic components which have not been approved by Invacare for use with this mobility aid can cause fire hazards and lead to electromagnetic damage.

– Only ever use electrical and electronic components which have been approved by Invacare for this mobility aid.

Batteries which have not been approved by Invacare for use with this mobility aid can cause chemical burns.

– Only ever use batteries which have been approved by Invacare for this mobility aid.

CAUTION!

Risk of injuries, and damage to the mobility device, if unapproved backrests are used

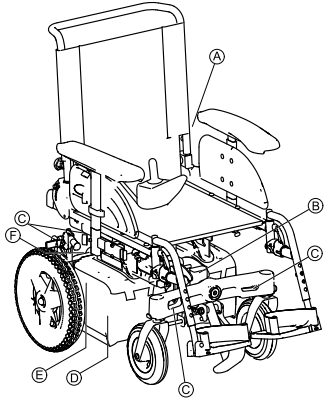
A retrofitted backrest which is not approved by Invacare for use with this mobility device may overload the backrest tube and thus increase the risk of injuries and of damage to the mobility device.

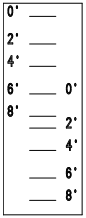
– Please contact your Invacare specialist dealer who will perform risk analyses, calculations, stability checks etc. to ensure that the backrest can be used safely.

Important information about maintenance work tools

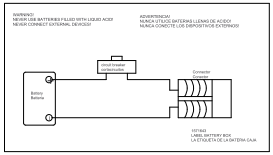
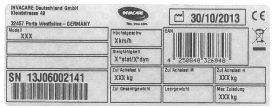
– Some maintenance work which is described in this manual and can be carried out by the user without problems require the correct tools for proper work. If you do not have the correct tool available we do not recommend that you try to carry out the relevant work. In this case, we urgently recommend that you contact an authorised specialist workshop.

2.6 The position of the labels on the product



Ⓐ		If the mobility device is fitted with a table, it is imperative that it is removed and safely stowed when transporting the mobility device in a vehicle.
Ⓑ		Scale for setting the seat angle
Ⓒ	Identification of the lashing eyes at the front and back:	

	This symbol indicates the position of an anchor point when using a lashing system during transport.
	If the symbol appears on a bright yellow sticker, the anchoring point is suitable for fixation of the mobility device in a vehicle for use as a vehicle seat.
	Warning that the mobility device may not be used as a vehicle seat • This mobility device does not satisfy the requirements of ISO 7176-19:2001 and may not under any circumstances be used as a vehicle seat or to transport the user in a vehicle. • Using a mobility device that does not fulfill these criteria as a vehicle seat can lead to the most severe injuries and even death in the event of a traffic accident.

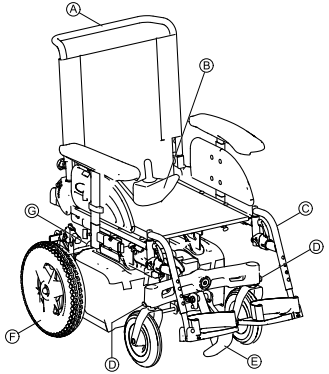
Ⓓ		Battery wiring diagram under the battery box cover
Ⓔ		Identification label sticker on the rear post containing the following symbols:
		Date of manufacture
		This product complies with Directive 93/42/EEC concerning medical devices. The launch date of this product is stated in the CE declaration of conformity.

		This product has been supplied from an environmentally aware manufacturer. This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation. • The 'crossed out wheelie bin' symbol is placed on this product to encourage you to recycle wherever possible. • Please be environmentally responsible and recycle this product through your recycling facility at its end of life.
Ⓕ	Identification of the position of the coupling lever for driving and push operation (not visible in the picture):	

	This symbol indicates the "Drive" position of the coupling lever. In this position the motor is engaged and the motor brakes are operational. You can drive the mobility device. • Please note that for driving purposes both motors must always be engaged.
	This symbol indicates the "Push" position of the coupling lever. In this position the motor is disengaged and the motor brakes are not operational. The mobility device can be pushed by an attendant and the wheels turn freely. • Please note that the control panel must be switched off. • Please also note the information provided in section 5.6 Pushing the mobility device in freewheel mode, page 24.

3 Components

3.1 Key features



Ⓐ Push bar

Ⓑ Remote

Ⓒ Legrests

Ⓓ Caster locks

Ⓔ Curb climber

Ⓕ Drive wheel

Ⓖ Levers for disengaging motors at the rear (not visible in the picture)

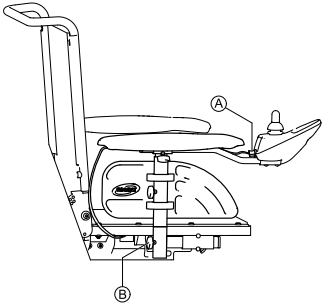
3.2 Remotes

Your mobility device may be fitted with one of several different remotes. For information on the different functions and how to operate a particular remote, refer to its corresponding user manual (enclosed).

4 Getting in and out of the mobility device

! – The armrest must be removed in order to get into or out of the mobility device from the side.

4.1 Removing the standard armrest in order to side transfer



1. Remove the remote cable Ⓐ from the remote. Refer to 10.4.2 Disconnecting the remote, page 52.
2. Loosen wing nut Ⓑ.
3. Remove the armrest from the receptacle.

4.2 Information about getting in and out

Getting into the mobility device:

1. Position your mobility device as close as possible to your seat. This might have to be done by an attendant.
2. Switch your mobility device off.
3. Apply the manual wheel lock of your mobility device (if existing).
4. Depending on the armrest type of your mobility device, detach the armrest or swivel it up.
5. Now slide into the mobility device.

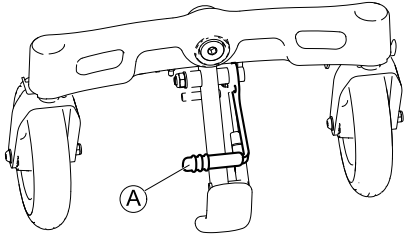
Getting out of the mobility device:

1. Drive your mobility device as close as possible to your seat.
2. Switch your mobility device off.
3. Apply the manual wheel lock of your mobility device (if existing).
4. Depending on the armrest type of your mobility device, detach the armrest or swivel it up.
5. Now slide onto your new seat.

i **NOTE**
– If you do not have sufficient muscle strength, you should ask other persons for help. Use a sliding board, if possible.

4.3 Folding away/releasing the curb climber

The curb climber can be folded away to make it easier to front transfer. It can also be folded away when transporting the mobility device to reduce the size of the folded base.



Folding away the curb climber

1. Pull the lever Ⓐ on the curb climber to fold it away.

Releasing the curb climber

1. Push down the lever of the curb climber to release it.

4.4 Using the cane holder

If your mobility device is fitted with a cane holder, it can be used for the safe transport of a walking cane, underarm or forearm crutches. The cane holder consists of a plastic container (bottom) and a Velcro fastener (top).

CAUTION!
Risk of injury! A walking cane or crutches that are not secured during transport (on the user's lap, for example) can cause injury to the user or other persons!
– During transport, walking canes or crutches should always be secured using a cane holder!

1. Open the upper Velcro fastener.
2. Place the lower end of the walking cane or the crutches in the container at the bottom.
3. The walking cane or the crutches can be secured at the upper end using the Velcro fastener.

5 Driving

CAUTION!
Risk of unexpected driving behavior due to locked casters
If your mobility device is fitted with caster locks and these are locked, the casters cannot move freely and the mobility device might therefore not react to your steering as it should.
– Make sure the caster locks are unlocked before driving.

NOTE
– The maximum load capacity that is stated in the technical data only states that the system is designed for this mass in total. However, this does not mean that one can sit a person with this body weight in the mobility device without restrictions. Attention must be paid to the body proportions, such as height, weight distribution, abdominal belt, leg and calf strap and seat depth. These factors have a strong influence on driving features such as tilt stability and traction. The permissible axle loads in particular must be adhered to (refer to 13 Technical data, page 57). It may possibly be necessary to carry out adaptations to the seat system.

5.1 Before driving for the first time

Before you take your first trip, you should familiarise yourself well with the operation of the vehicle and with all operating elements. Take your time to test all functions and driving modes.

NOTE
– If installed, make sure to properly adjust and use the postural belt each time you use the wheelchair.

Sitting comfortably = Driving safely

Before each trip, make sure that:

- You are within easy reach of all operating controls.
- The battery charge is sufficient for the distance intended to be covered.
- The postural belt (if installed) is in perfect order.
- The rear mirror (if installed) is adjusted so you can look behind at all times without having to bend forward or shift your seating position.

5.2 Parking and stationary

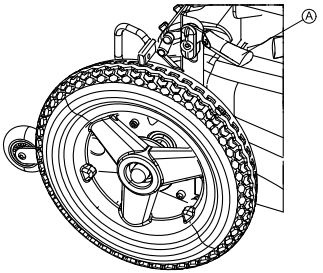
When parking your vehicle or if your vehicle is stationary for a prolonged period:

1. Switch the vehicle's power system off (ON-/OFF key).
2. Activate your anti-theft lock, if existing.

5.2.1 Engaging/Disengaging the parking brakes

The motors of the mobility device are fitted with automatic brakes, preventing that the mobility device starts rolling out of control when the joystick box is switched off.

Your mobility device can also be fitted with parking brakes in addition to the motor brakes. These prevent the mobility device from rocking during transport, for example, in the case of play in the transmission.



Engaging the parking brake:

1. Pull lever Ⓐ upwards.

Disengaging the parking brake:

1. Press lever Ⓐ downwards.

5.3 Taking Obstacles

5.3.1 Maximum obstacle height

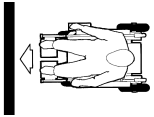
You can find information about maximum obstacle heights in the chapter entitled 13 Technical data, page 57.

5.3.2 Safety information when ascending obstacles

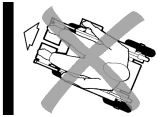
CAUTION!
Risk of tipping over
– Never approach obstacles at an angle but at 90 degrees as shown below.
– Put your backrest into an upright position before climbing an obstacle.

CAUTION!
Risk of falling out of the mobility device and damage to the mobility device such as broken casters
– Never approach obstacles that are higher than the maximum climbable obstacle height. For the maximum climbable obstacle height, refer to 13 Technical data, page 57.
– If unsure whether the curb climb is possible or not, move away from the obstacle and if possible find another location.

5.3.3 The correct way to overcome obstacles



Right



Wrong

Ascending

1. Approach the obstacle or the curb slowly, head-on and at a right angle.
2. Depending on the wheel drive type, stop in one of the following positions:
   a. In the case of centrally driven mobility devices: 5 - 10 cm before the obstacle.
   b. For all other drives: approx. 30 - 50 cm in front of the obstacle.

3. Check the position of the front wheels. They must be in driving direction and at right angles to the obstacle.
4. Approach slowly and keep at a consistent speed until the rear wheels have also passed over the obstacle.

Descending

The approach to descend an obstacle is the same as to ascend it with the difference that you need not stop before descending.

1. Descend the obstacle very slowly.

5.4 Driving up and down gradients

For information concerning the maximum safe slope, refer to 13 Technical data, page 57.

CAUTION!
Risk of tipping over
- Only ever drive downhill at a maximum of 2/3 of the top speed. Avoid sudden changes of direction or abrupt braking when driving on slopes.
- Always return the backrest of your seat or the seat tilt (if adjustable seat tilt is available) to an upright position before ascending slopes. We recommend that you position the seat backrest or the seat tilt slightly to the rear before descending slopes.
- Always lower the lifter (if fitted) to its lowest position before ascending or descending a slope.
- Never attempt to ascend or descend a slope on slippery surfaces or where there is a risk of skidding (such as wet pavement, ice etc).
- Avoid trying to get out of the vehicle on an incline or a gradient.
- Always drive straight in the direction the road or path you are on goes, rather than attempting to zigzag.
- Never attempt to turn around on an incline or a slope.

CAUTION!
Braking distance is much longer on a downhill slope than on even terrain
- Never drive down a slope that exceeds the maximum safe slope (refer to 13 Technical data, page 57).

5.5 Use on public roads

If you wish to use your mobility device on public roads and lighting is required by national legislation, then your mobility device needs to be fitted with an appropriate lighting system.

Contact your Invacare dealer if you have any questions.

5.6 Pushing the mobility device in freewheel mode

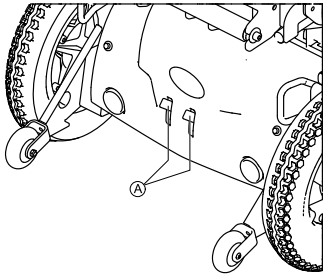
The motors of the mobility device are fitted with automatic brakes, preventing that the mobility device starts rolling out of control when the joystick box is switched off. When pushing the mobility device manually whilst freewheeling, the magnetic brakes must be disengaged.

5.6.1 Disengaging motors

CAUTION!
Risk of the mobility device running away
– When the motors are disengaged (for push operation whilst freewheeling), the electromagnetic motor brakes are deactivated. When the mobility device is parked, the levers for engaging and disengaging the motors must without fail be locked firmly into the "DRIVE" position (electromagnetic motor brakes activated).

NOTE
– The motors may only be disengaged by an attendant, not by the user.
– This ensures that the motors are only disengaged if an attendant is available to secure the mobility device and prevent unintended rolling.

The levers for disengaging the motors are located at the rear of the mobility device.



Disengaging the motor:

1. Switch off remote.
2. Pull the engaging levers Ⓐ upwards. The motor is disengaged.

Engaging the motor:

1. Push the engaging levers down Ⓐ. The motor is engaged.

6 Adjusting the mobility device to the user's seating posture

6.1 General information on adjusting the mobility device to the user's seating posture

CAUTION!
Damage to mobility device and accident hazard
It is possible that collisions can occur between mobility device components due to various combinations of adjustment options and their individual settings
– The mobility device is fitted with an individual, multiply adjustable seating system including adjustable legrests, armrests, a headrest or other options. These adjustment options are described in the following chapters. They are used to adapt the seat to the physical requirements and the condition of the user. When adapting the seating system and the seat functions to the user, ensure that no mobility device components collide.

NOTE
– Initial setup should always be done by a healthcare professional. Adjustment by the user is only recommended after they have been given appropriate guidance by the healthcare professional.

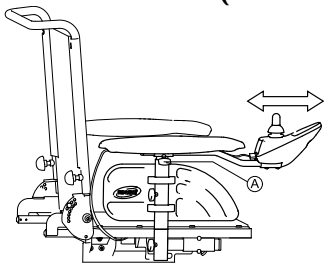
Electrical adjustment options
– Please refer to the user manual for your remote for more information on operating electrical adjustment options.

6.2 Adjustment possibility for remote

The following information is valid for all seating systems.

CAUTION!
Risk of the remote being pushed backwards during an accidental collision with an obstacle, such as a doorframe or table, and the joystick being jammed against the armpad if the position of the remote is adjusted and all screws are not completely tightened
This will cause the mobility device to drive forward uncontrollably and potentially injure the mobility device user and any person standing in the way.
– When adjusting the position of the remote, always make sure to tighten all screws securely.
– If this should accidentally happen, immediately switch the mobility device electronics OFF at the remote.

6.2.1 Adjusting the remote for the length of the user's arm (all seat systems)

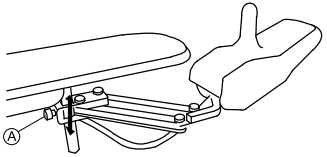


1. Loosen wing bolt Ⓐ.
2. Shift the remote forwards or backwards to the desired distance.
3. Retighten the bolt.

6.2.2 Adjusting the height of the remote (only for swing–away remote holders)

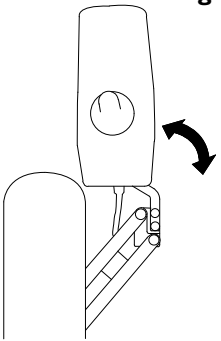
Requirements:

- 1 x 6 mm Allen key



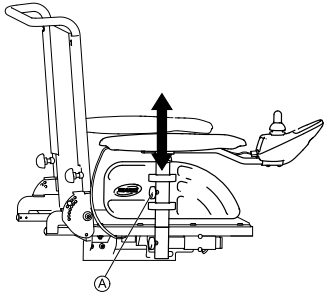
1. Loosen the Allen screw Ⓐ.
2. Adjust the remote to the desired height.
3. Re-tighten the Allen screw.

6.2.3 Swivelling the remote to the side



If your mobility device is fitted with a swing-away remote bracket, then the remote can be moved away to the side, for example, to drive up close to a table.

6.3 Adjusting the height of the armrests

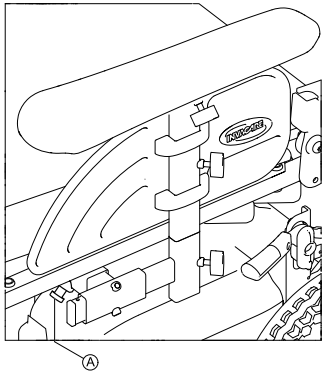


1. Loosen the wing screw Ⓐ.
2. Set the armrest to the desired height.
3. Re-tighten the wing screw.

6.4 Adjusting the width of the armrests

Requirements:

- Allen key 8 mm

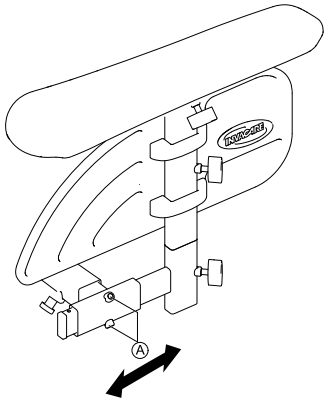


1. Loosen screw Ⓐ.
2. Adjust armrest to required position.
3. Retighten the screw.
4. Repeat this procedure for the second armrest.

6.5 Adjusting the position of the armrest in depth

WARNING!
Serious risk of injury if an armrest falls out of its bracket because it was pulled too far forward.
– The armrest may be pulled forward out of the bracket as far as the point where the end of the inserted tube is flush with the rear of the bracket, but no further.

Requirements:
- Allen key 3 mm



1. Loosen the screws Ⓐ and move the armrest in depth.
2. Tighten the screws securely.

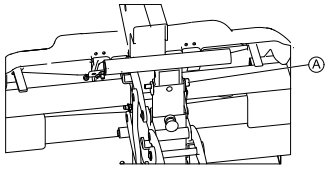
6.6 Adjusting the seat angle

CAUTION!
Adjusting the seat tilt or the backrest angle changes the geometry of the mobility device and directly influences its dynamic stability!
– For details regarding dynamic stability, negotiating gradients and obstacles and the correct adjustment of seat tilt or backrest angle, refer to 5.3 Taking Obstacles, page 22 and 5.4 Driving up and down gradients, page 23.

Requirements:
- 10 mm open-ended spanner
- 5 mm Allen key

The possible seat angles are marked on a scale on the center post. Depending on the rear seat height, you need to use the bottom or top scale respectively:

- Upper seat height: use the bottom scale
- Lower seat height: use the top scale

1. 

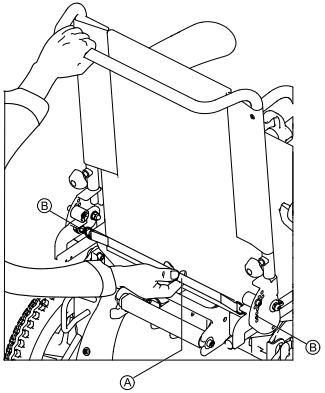
   Remove the screw and nut Ⓐ.
2. Adjust the center post to the desired seat angle.
3. Refit the screw and nut.

6.7 Adjusting the backrest angle

CAUTION!
Adjusting the seat tilt or the backrest angle changes the geometry of the mobility device and directly influences its dynamic stability!
– For details regarding dynamic stability, negotiating gradients and obstacles and the correct adjustment of seat tilt or backrest angle, refer to 5.3 Taking Obstacles, page 22 and 5.4 Driving up and down gradients, page 23.

CAUTION!
Risk of tipping if the backrest angle is set too far backwards for a seat on the rear seat position and with a seat depth larger than 460 mm
– When your seat with a seat depth larger than 460 mm is positioned on the rear seat position, adjust the backrest angle to maximum 105°.

The backrest is fitted with a stopper allowing you to easily reset the backrest to your preferred backrest angle. Adjusting the backrest is only possible between this angle and smaller angles. If you want to use a larger backrest angle, you need to adjust the stopper. Refer to 6.8 Adjusting the backrest stopper, page 29.



1. Pull the belt Ⓐ to the rear. The locking pins Ⓑ are pulled out of the locking plates. The backrest can now be moved.
2. Adjust the backrest to the required position.
3. Release the belt again. The locking pins engage automatically.

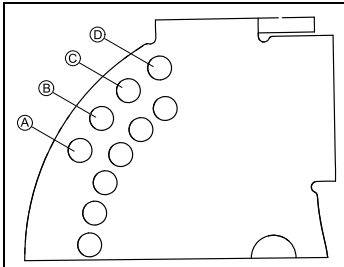
6.8 Adjusting the backrest stopper

CAUTION!
Adjusting the seat tilt or the backrest angle changes the geometry of the mobility device and directly influences its dynamic stability!
– For details regarding dynamic stability, negotiating gradients and obstacles and the correct adjustment of seat tilt or backrest angle, refer to 5.3 Taking Obstacles, page 22 and 5.4 Driving up and down gradients, page 23.

CAUTION!
Risk of tipping if the backrest angle is set too far backwards for a seat on the rear seat position and with a seat depth larger than 460 mm
– When your seat with a seat depth larger than 460 mm is positioned on the rear seat position, adjust the backrest angle to maximum 105°.

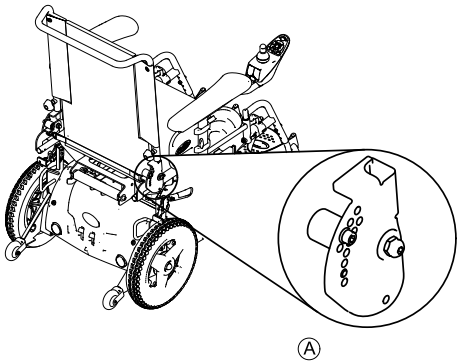
Requirements:
- 4 mm Allen key

The backrest is fitted with a stopper allowing you to easily reset the backrest to your preferred backrest angle. Adjusting the backrest is only possible between this angle and smaller angles. If you want to use a larger backrest angle, you need to adjust the stopper.



Ⓐ	85°
Ⓑ	95°
Ⓒ	105°
Ⓓ	115°

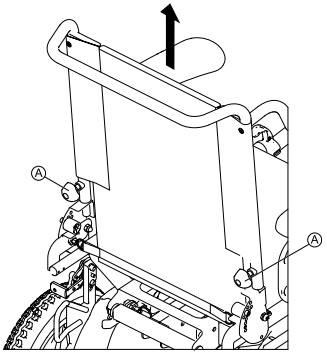
– By default, the stopper is set to a backrest angle of 105°.



1. Remove the screw Ⓐ.
2. Adjust the stopper to the desired angle.
3. Refit the screw.

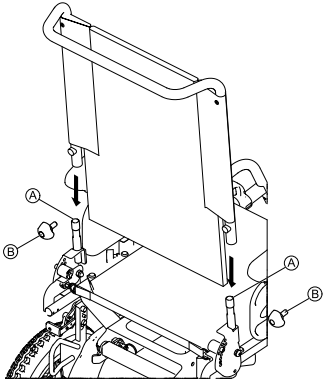
6.9 Removing/Installing the backrest

Removing the backrest



1. Remove the thumb screws Ⓐ.
2. Lift the backrest upwards.

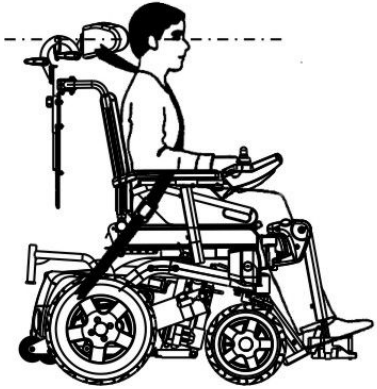
Installing the backrest



1. Set the backrest tube onto the mounting brackets Ⓐ.
2. Fit the thumb screws Ⓑ and tighten.

6.10 Adjusting the headrest

WARNING!
Risk of injury if the mobility device is used as a vehicle seat without a headrest
This can cause the neck to be hyperextended during collisions.
– It is recommended to use a headrest during transport. The Invacare headrest for this mobility device (available as an option) is the perfect solution for use during transport.
– The headrest must be adjusted to the user's ear height.

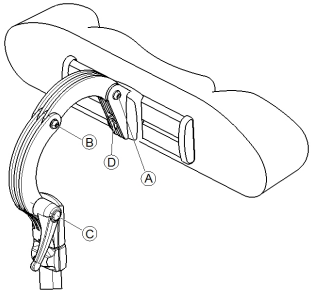


6.10.1 Adjusting the position of the headrest or neckrest

The adjustment of the position is the same for all headrests and neckrests.

Requirements:

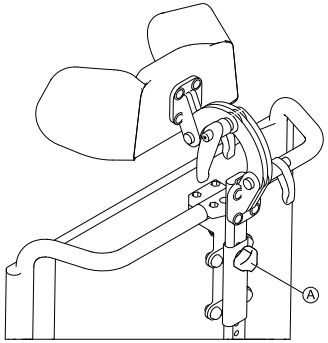
- Allen key 5 mm



1. Loosen the screws Ⓐ , Ⓑ or the clamping lever Ⓒ.
2. Adjust the headrest or neckrest to the required position.
3. Retighten screws and clamping lever.
4. Loosen the Allen screw Ⓓ.
5. Slide the headrest left or right to the required position.
6. Retighten the Allen screw.

6.10.2 Adjusting the height of the headrest or neckrest

The adjustment of the height is the same for all headrests and neckrests.



1. Loosen the knob Ⓐ.
2. Adjust the headrest or neckrest to the required height.
3. Retighten the knob.

6.11 Postural belts

A postural belt is an option which can either be fixed to the mobility device ex-works or can be retrofitted by your specialist dealer. If your mobility device is fitted with a postural belt, your specialist dealer will have informed you about fitting and usage.

The postural belt is used to help the mobility device user keep an optimum sitting position. Correct use of the belt assists the user in sitting securely, comfortably and well-positioned in the mobility device, especially for such users who do not have such a good sense of balance while sitting.

NOTE

– We recommend using the postural belt whenever the mobility device is used. The belt should be tight enough to ensure that you are sitting comfortably and that your body is in the correct sitting position.

6.11.1 Types of postural belts

Your mobility device can be fitted with the following postural belt types ex-works. If your mobility device has been fitted with a different belt to those listed below, please ensure that you have received the manufacturer's documentation with regard to correct fitting and use.

Belt with metal buckle, adjustable both sides

Belt can be adjusted on both sides. This means that the buckle can be centrally positioned.

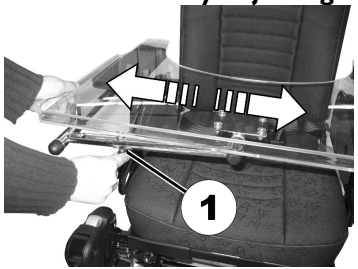
6.11.2 Adjusting the postural belt correctly

1. Ensure that you are sitting correctly, which means that you are sitting right at the back of the seat, your pelvis is positioned erect and as symmetrically as possible, not to the front, to the side or at one edge of the seat.
2. Position the postural belt so that your hipbones can be easily felt above the belt.
3. Adjust the belt length using one of the adjustment aids described above. The belt should be adjusted so that you can fit a flat hand between the belt and your body.
4. The buckle should be positioned as centrally as possible. In doing so, carry out adjustments on both sides as much as possible.
5. Check your belt every week to ensure that it is still in good working condition, to ensure it has no damage or wear, and that it is fixed properly to the mobility device. If the belt is only fastened with a bolted connection, ensure that the connection has not loosened or come undone. You can find more information about maintenance work on belts in the service manual, which is available from Invacare.

6.12 Adjusting and removing the tray

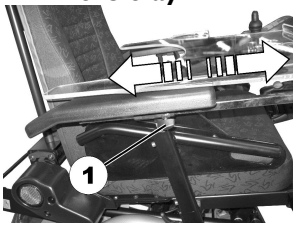
CAUTION!
Injury hazard or material damage if a mobility device which is fitted with a table is transported in a vehicle
– If a table is fitted, always remove it before transporting the mobility device.

6.12.1 Laterally adjusting the tray



1. Loosen the wing-screw (1).
2. Adjust the tray towards the left or right.
3. Re-tighten wing-screw.

6.12.2 Adjusting the depth of the tray / removing the tray



1. Loosen the wing-screw (1).
2. Adjust the table to the desired depth (or remove it entirely).
3. Re-tighten the screw.

6.12.3 Swinging the tray away to the side

The tray can be swivelled up and away to the side to allow the user to get in and out of the mobility device.

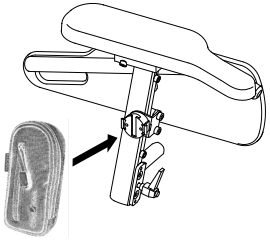
CAUTION!
Risk of injury! When the tray is raised it does not lock in place in this position!
– Do not tilt the tray up and leave it leaning in this position.
– Never attempt to drive with the tray tilted up.
– Always lower the tray in a controlled manner.

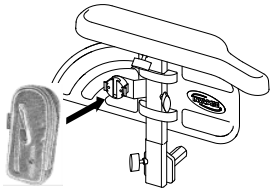
6.13 Using the KLICKfix adapter

Your mobility device can be fitted with the mini-adapter from the Rixen + Kaul KLICKfix system. To this you can attach various accessories such as the cellphone case supplied by Invacare, which you can use to transport your cellphone, sports glasses etc.

Risk posed by unsecured accessories
Accessories can fall off and get lost if they are not properly secured.
– Check that the accessory is correctly locked in and seated securely every time you use the mobility device.

Risk of breakage due to excessive load
The KLICKfix adapter can break if too great a load is applied.
– The maximum permitted load on the KLICKfix adapter is 1 kg.





Securing the accessory:

1. Push the accessory into the KLICKfix adapter.
   The accessory locks in securely.

Removing the accessory:

1. Press the red button and remove the accessory.

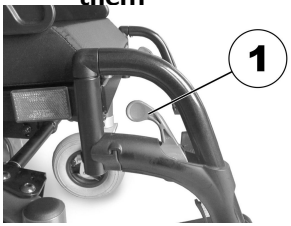
The adapter can turn in 90° steps, allowing you to attach an accessory from any of four different directions. Please refer to the installation instructions which are available from your Invacare dealer or directly from Invacare.

More information on the KLICKfix system is available at http://www.klickfix.com.

7 Adjusting footrests and legrests

7.1 Standard 80° footrest

7.1.1 Swivel the footrests outwards and/or remove them



The small release lever is to be found in the upper part of the legrest (1). When the legrest is released it can be swivelled inward or outward to facilitate access and also be removed completely.

1. Push the release lever inward or outward. The legrest is released.
2. Swivel the legrest inward or outward.
3. To remove the legrest simply pull upward.

7.1.2 Adjusting the length

Requirements:

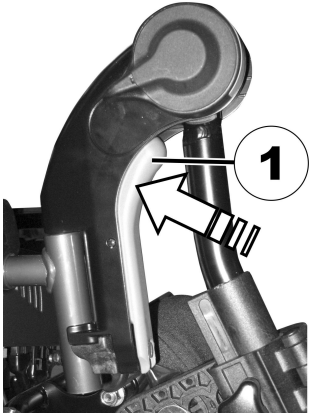
- 1 x 5 mm Allen key

1. Loosen the screw (1) using the Allen key, but do not remove completely.
2. Set the legrest to the desired length.
3. Re-tighten the screw.

7.2 Manually height-adjustable legrest

7.2.1 Swivelling the legrest outward and/or removing

The unlocking knob is located on the top section of the legrests. When the legrest is unlocked, it can be swivelled to the inside or outside to facilitate getting in, or can be completely removed.

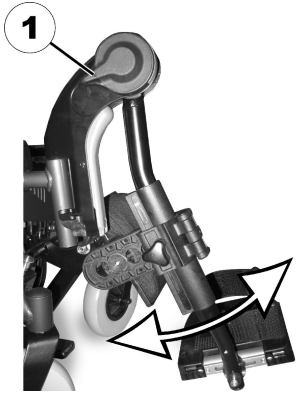


1. Press the unlocking knob (1) and remove the legrests upwards.

7.2.2 Setting the angle

CAUTION!
Risk of crushing
– Do not reach inside the swivelling range of the legrest.

CAUTION!
Risk of injury due to incorrect adjustment of the footrests and legrests
– Before and during every journey it is imperative to ensure that the legrests contact neither the caster wheels nor the ground



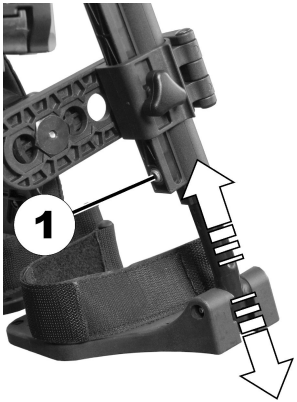
1. Press the unlocking lever (1) down. Adjust the legrest to the required angle.
2. Release the unlocking lever. The legrest engages.

7.2.3 Adjusting the length of the legrest

CAUTION!
Risk of injury due to incorrect adjustment of the footrests and legrests
– Before and during every journey it is imperative to ensure that the legrests contact neither the caster wheels nor the ground

Requirements:

- 1 x 5 mm Allen key



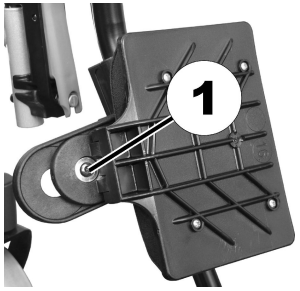
1. Loosen bolt (1) with the Allen key.
2. Adjust to required length.
3. Retighten the screw.

7.2.4 Adjusting the depth of the calf pad

The calf pad has four depth settings.

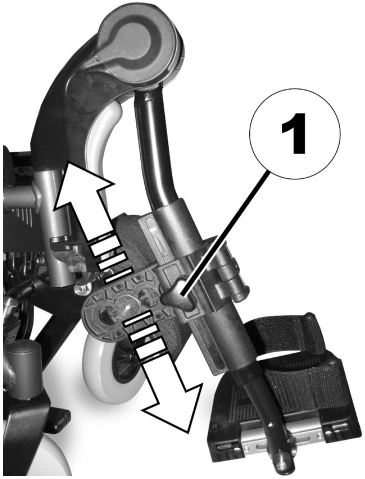
Requirements:

- 1 x 4 mm Allen key



1. Swivel the calf pad to the front.
2. Release bolt (1) with the Allen key and remove.
3. Set the nut on the other side to the required depth.
4. Adjust the calf pad to match the depth of the nut, put the screw back in and tighten.

7.2.5 Adjusting the height of the calf pad



1. Loosen the hand screw (1).
2. Adjust to required position.
3. Retighten the wing nuts.

8 Electrical system

8.1 Electronics protection system

The vehicle drive electronics is fitted with an overload protection.

If the drive is severely overloaded over a long period (for example, during steep climbs) and, above all, at simultaneous high external temperatures, the electronic system can overheat. In this case, the vehicle performance is gradually reduced until it comes to a standstill. The status display shows a corresponding flash code (please refer to the user manual for your remote). If you switch the drive electronics off and then on again, the error message is deleted and the electronics can be switched on again. It can however take up to five minutes until the electronics has cooled down enough for the drives to apply their full performance.

If the drive is blocked due to an insurmountable obstacle, for example, a curb or similar which is too high, and the driver attempts to run the drive for more than 20 seconds against this obstacle, the electronic system switches the drives off to avoid damage. The status display shows a corresponding flash code (please refer to the user manual for your remote). If you switch the drive electronics off and then on again, the error message is deleted and the electronics can be switched on again.

NOTE

– A defective main fuse may be replaced only after checking the entire electric system. An Invacare specialised dealer must perform the replacement. You can find information on the fuse type in 13 Technical data, page 57.

8.2 Batteries

Power is supplied by two 12 V batteries. The batteries are maintenance-free and only need regular charging.

In the following, you find information on how to charge, handle, transport, store, maintain, and use batteries.

8.2.1 General information on charging

New batteries should always be fully charged once before their first use. New batteries will be at their full capacity after having run through approx. 10 - 20 charging cycles (break-in period). This break-in period is necessary to fully activate the battery for maximum performance and longevity. Thus, range and running time of your mobility device could initially increase with use.

Gel/AGM lead acid batteries do not have a memory effect as NiCd batteries.

8.2.2 General instructions on charging

Follow the instructions listed below to ensure safe use and longevity of the batteries:

- Charge 18 hours prior to initial usage.
- We recommend charging the batteries daily after every discharge even after partly discharge, as well as each night over night. Depending on the level of discharge, it can take up to 12 hours until the batteries are fully charged again.
- When the battery indicator reached the red LED range, charge the batteries for 16 hours minimum, neglecting the charge complete display!
- Try to provide a 24 hour charge once a week to make sure that both batteries are fully charged.
- Do not cycle your batteries at a low state of charge without regularly recharging them fully.

- Do not charge your batteries under extreme temperatures. High temperatures above 30 °C are not recommended for charging as well as low temperatures below 10 °C.
- Use only charging devices in Class 2. This class of chargers may be left unattended during charging. All charging devices which are supplied by Invacare comply with these requirements.
- You cannot overcharge the batteries when using the charger supplied with your vehicle, or a charger that has been approved by Invacare.
- Protect your charger from sources of heat such as heaters and direct sunlight. If the battery charger overheats, charging current will be reduced and the charging process delayed.

8.2.3 How to charge the batteries

Refer to the user manuals for your remote and battery charger for the position of the charging socket and further information about charging the batteries.

WARNING!

Risk of explosion and destruction of batteries if the wrong battery charger is used

– Only ever use the battery charger supplied with your vehicle, or a charger that has been approved by Invacare.

Risk of electric shock and damage to the battery charger if it gets wet

– Protect the battery charger from water.
– Always charge in a dry environment.

Risk of short circuit and electric shock if the battery charger has been damaged

– Do not use the battery charger if it has been dropped or damaged.

Risk of electric shock and damage to the batteries

– NEVER attempt to recharge the batteries by attaching cables directly to the battery terminals.

Risk of fire and electric shock if a damaged extension cable is used

– Only ever use an extension cable if it is absolutely necessary. In case you must use one, make sure it is in good condition.

Risk of injury if using the mobility device during charging

– DO NOT attempt to recharge the batteries and operate the mobility device at the same time.
– DO NOT sit in the mobility device while charging the batteries.

1. Switch off the mobility device.
2. Connect the battery charger to the charger socket.
3. Connect the battery charger to the power supply.

8.2.4 How to disconnect the batteries after charging

1. Once charging is complete, first disconnect the battery charger from the power supply, then disconnect the plug from the remote.

8.2.5 Storage and Maintenance

Follow the instructions listed below to ensure safe use and longevity of the batteries:

- Always store the batteries fully charged.
- Do not leave the batteries in a low state of charge for an extended length of time. Charge a discharged battery as soon as possible.
- In case your mobility device is not used for a longer period of time (that is more than two weeks), the batteries must be charged at least once a month to maintain a full charge and always be charged before use.
- Avoid hot and cold extremes when storing. We recommend to store batteries at a temperature of 15 °C.
- Gel and AGM batteries are maintenance-free. Any performance issues should be handled by a properly trained mobility device technician.

8.2.6 Instructions on using the batteries

CAUTION!
Risk of damaging the batteries.
– Avoid ultra-deep discharges and never drain your batteries completely.

- Pay attention to the Battery Charge Indicator! Charge the batteries when the Battery Charge Indicator shows that battery charge is low.
  How fast the batteries discharge depends on many circumstances, such as ambient temperature, condition of the surface of the road, tire pressure, weight of the driver, way of driving and utilisation of lighting, if fitted.
- Try to charge the batteries always before you reach the red LED range.
  The last 3 LED (two red and one orange) mean a remaining capacity of about 15 %.
- Driving with flashing red LED's means an extreme stress for the battery and should be avoided under normal circumstances.
- When only one red LED is flashing, the Battery Safe feature is enabled. From this time, speed and acceleration is reduced drastically. It will allow you to move the mobility device slowly out of a dangerous situation before the electronic finally cuts off. This is deep discharging and should be avoided.
- Be aware that for temperatures below 20 °C, the nominal battery capacity starts to decline. For example, at -10 °C the capacity is reduced to about 50 % of the nominal battery capacity.
- To avoid damaging the batteries, never allow them to be fully discharged. Do not drive on heavily discharged batteries if it is not absolutely necessary, as this will strain the batteries unduly and shorten their life expectancy.
- The earlier you recharge the batteries, the longer they live.

- The depth of discharge affects the cycle life. The harder a battery has to work, the shorter is its life expectancy. Examples:
  - One deep discharge stresses the same as 6 normal cycles (green /orange display off).
  - The battery life is about 300 cycles at 80 % discharge (first 7 LED off), or about 3000 cycles at 10 % discharge (one LED off).

NOTE
- The number of LED can vary depending on the remote type.

- Under normal operation, once a month the battery should be discharged until all green and orange LED are off. This should be done within one day. A 16 hour charge afterwards is necessary as reconditioning.

8.2.7 Transporting batteries

The batteries supplied with your electric vehicle are not hazardous goods. This classification is based on the German GGVS Hazardous Goods Road Transport Ordinances, and the IATA/DGR Hazardous Goods Rail Transport / Air Transport Ordinances. Batteries may be transported without restrictions, whether by road, rail or by air. Individual transport companies have, however, guidelines which can possibly restrict or forbid certain transport procedures. Please ask the transport company regarding each individual case.

8.2.8 General instructions on handling the batteries

- Never mix and match different battery manufactures or technologies, or use batteries that do not have similar date codes.
- Never mix gel with AGM batteries.
- Always have your batteries installed by a properly trained mobility device technician. They have the necessary training and tools to do the job safely and correctly.

8.2.9 How to handle damaged batteries correctly

CAUTION!
Corrosion and burns from acid leakage if batteries are damaged
- Remove clothes that have been soiled by acid immediately.

After contact with skin:
- Immediately wash affected area with lots of water.

After contact with eyes:
- Immediately rinse eyes under running water for several minutes; consult a physician.

- Always wear safety goggles and appropriate safety clothing when handling damaged batteries.
- Place damaged batteries in an acid-resistant receptacle immediately after removing them.
- Only ever transport damaged batteries in an appropriate acid-resistant receptacle.
- Wash all objects that have come into contact with acid with lots of water.

Disposing of dead or damaged batteries correctly

Dead or damaged batteries can be given back to your dealer or directly to Invacare.

9 Maintenance

9.1 Maintenance introduction

The term “Maintenance“ means any task performed to ensure that a medical device is in good working order and ready for use as intended. Maintenance encompasses different areas, such as everyday care and cleaning, inspection checks, repair tasks and refurbishment.

NOTE

– Have your vehicle checked once a year by an authorised Invacare dealer in order to maintain its driving safety and roadworthiness.

9.2 Cleaning the mobility device

When cleaning the mobility device, pay attention to the following points:

- Only use a damp cloth and gentle detergent.
- Do not use any abrasive or scouring agents.
- Do not subject the electronic components to any direct contact with water.
- Do not use any high-pressure cleaning devices.

Disinfection

Spray or wipe disinfection using a tested and recognised product is permitted. A list of the current permitted disinfectants is available from the Robert Koch Institute at http://www.rki.de.

9.3 Inspection checks

The following table lists inspection checks that should be performed by the user and their intervals. If the mobility device fails to pass one of the inspection checks, refer to the chapter indicated or contact your authorised Invacare dealer. A more comprehensive list of inspection checks and instructions for maintenance work can be found in the service manual for this device, which can be obtained from Invacare. That manual, however, is intended to be used by trained and authorized service technicians, and describes tasks which are not intended to be performed by the user.

9.3.1 Before each use of the mobility device

Item	Inspection check	Action
Signal horn	Check for correction function.	Contact your dealer.
Batteries	Make sure the batteries are charged. Refer to the user manual provided with your remote for a description of the Battery Charge Indicator.	Charge the batteries (refer to8.2.3 How to charge the batteries, page 40).

9.3.2 Weekly

Item	Inspection check	Action
Armrests/side parts	Check that armrests are firmly attached in their holders and do not wobble.	Tighten the screw or clamping lever that holds the armrest (refer to 6.2 Adjustment possibility for remote, page 25). Contact your dealer.
Tires (puncture-proof)	Check that the tires are undamaged.	Contact your dealer.

9.3.3 Monthly

Item	Inspection check	Action
All upholstered parts	Check for damage and wear.	Contact your dealer.
Removable legrests	Check whether the legrests can be fixed securely and whether the loosening mechanism is properly operable (refer to 7 Adjusting footrests and legrests, page 35).	Contact your dealer.
	Check that all adjustment options function properly (refer to 7 Adjusting footrests and legrests, page 35).	Contact your dealer.
Casters	Check that casters rotate and swivel freely.	Contact your dealer.
Drive wheels	Check that the drive wheels rotate without wobbling. It is easiest to have someone stand behind the mobility device and observe the drive wheels as you drive away from them to do this.	Contact your dealer.
Electronics and connectors	Check all cables for damage and all connecting plugs for snug fit.	Contact your dealer.

9.3.4 Inspections performed

It is confirmed by stamp and signature that all jobs listed in the inspection schedule of the service and repair instructions have been properly performed. The list of the inspection jobs to be performed can be found in the service manual which is available through Invacare.

Delivery Inspection	1st Annual Inspection

Stamp of authorized dealer / Date / Signature	Stamp of authorized dealer / Date / Signature
2nd Annual Inspection	**3rd Annual Inspection**
Stamp of authorized dealer / Date / Signature	Stamp of authorized dealer / Date / Signature
4th Annual Inspection	**5th Annual Inspection**
Stamp of authorized dealer / Date / Signature	Stamp of authorized dealer / Date / Signature

10 Transport

10.1 Transport — General information

WARNING!
Risk of death or serious injury to the mobility device user and potentially any other nearby occupant of the vehicle, if a mobility device is secured using a 4-point tie-down system available from a third party supplier and the unladen weight of the mobility device exceeds the maximum weight for which the tie-down system is certified

– Make sure the weight of the mobility device does not exceed the weight for which the tie-down system is certified. Consult the tie-down manufacturer's documentation.
– If you are unsure how much your mobility device weighs, then you must have it weighed using calibrated scales.

CAUTION!
Injury hazard or material damage if a mobility device which is fitted with a table is transported in a vehicle

– If a table is fitted, always remove it before transporting the mobility device.

10.2 Transferring the mobility device to a vehicle

WARNING!
The mobility device is in danger of tipping over if it is transferred to a vehicle while the driver is still seated in the mobility device

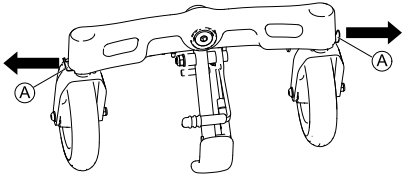
– Transfer the mobility device without the driver whenever possible.
– If the mobility device with the driver has to be transferred to a vehicle using a ramp, ensure that the ramp does not exceed the maximum safe slope (refer to 13 Technical data, page 57).
– If the mobility device has to be transferred to a vehicle using a ramp that does exceed the maximum safe slope (refer to 13 Technical data, page 57), a winch must then be used. An attendant can then safely monitor and assist the transfer process.
– Alternatively, a platform lift may be used.
– Ensure that the total weight of the mobility device including the user does not exceed the maximum permitted total weight for the ramp or platform lift.
– The mobility device should always be transferred to a vehicle with the backrest in an upright position, the seat lifter lowered and the seat tilt in the upright position (refer to 5.4 Driving up and down gradients, page 23).

1. Drive or push your mobility device into the transport vehicle using a suitable ramp.

10.2.1 Locking/Unlocking the caster locks

CAUTION!
Risk of unexpected driving behavior due to locked casters
If your mobility device is fitted with caster locks and these are locked, the casters cannot move freely and the mobility device might therefore not react to your steering as it should.
– Make sure the caster locks are unlocked before driving.

Your mobility device can be fitted with caster locks. These locks make loading and unloading the mobility device easier since they prevent the casters from turning and getting stuck in the transport vehicle.



Locking the caster locks

1. Align the casters in driving position.
2. Pull out the levers of the caster locks Ⓐ to lock the casters.

Unlocking the caster locks.

1. Push the levers of the caster locks inwards to unlock the casters.

10.3 Use of the mobility device as a seat in a vehicle

NOTE
– In order to use a mobility device as a motor vehicle seat, it needs to be fitted with attachment points to enable anchoring in the motor vehicle. These accessories may be included in the standard scope of mobility device order and delivery in some countries (UK for example), but may also be obtained from Invacare as an option in other countries.

This mobility device complies with the requirements of ISO 7176-19:2001 and may be used as a vehicle seat in connection with an anchoring system that has been checked and approved in accordance with ISO 10542. The transporting vehicle must be professionally converted to anchor the mobility device. Contact your vehicle's manufacturer for more information.

The mobility device has undergone a crash test in which it was anchored in the transporting vehicle's direction of travel. Other configurations were not tested. The crash test dummy was secured using pelvic and upper body safety belts. Both types of safety belt should be used in order to minimize the risk of injuries to head or upper body.

Invacare tests with a 4-point tie-down system from Unwin Safety Systems.
– Contact Unwin for more information on how to obtain such a system for your country and vehicle type. For information concerning the curb weight, refer to 13 Technical data, page 57.

It is imperative that the mobility device is inspected by an authorized dealer before being used again after being involved in a crash. Alterations to the mobility device anchoring points may not be carried out without the manufacturer's permission.

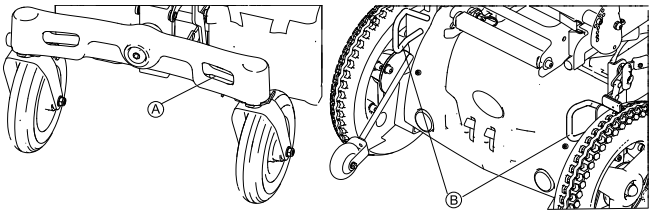
CAUTION!
There is a danger of injury if the mobility device is not properly secured during use as a vehicle seat.
- If possible, the user should always leave the mobility device to use a vehicle seat and the safety belts provided with the vehicle.
- The mobility device should always be anchored facing in the transport vehicle's intended direction of travel.
- The mobility device must always be secured in accordance with the mobility device and anchoring system manufacturers' user manual.
- Always remove and secure any accessory parts fixed to the mobility device such as chin controls or tables.
- If your mobility device is fitted with an angle adjustable backrest, then it must be placed in an upright position.
- Fully lower elevated legrests, if fitted.
- Fully lower the seat lifter, if fitted.

CAUTION!
Risk of injury exists if a mobility device that is not fitted with leak-proof batteries is transported in a vehicle.
- Only ever use leak-proof batteries.

CAUTION!
Risk of injury or damage to the mobility device or to the transporting vehicle, if the legrests are in a raised position while the mobility device is used as a vehicle seat.
- Always completely lower height-adjustable legrests, if fitted.

10.3.1 How the mobility device is anchored in a vehicle for use as a vehicle seat

The mobility device is fitted with four anchoring points, which are labelled with the symbol shown on the right. Snap hooks or belt loops can be used for fixation.



Front **Rear**

1. Secure the mobility device at the front Ⓐ and at the rear Ⓑ with the anchoring system belts. The curb climber does not have to be removed.
2. Secure the mobility device by tensioning the belts in accordance with the anchoring system manufacturer's user manual.

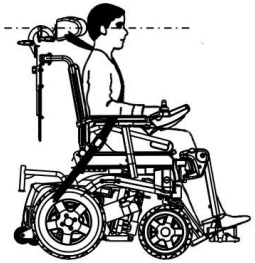
10.3.2 How the user is secured within the mobility device

CAUTION!
There is a risk of injury if the user is not properly secured within the mobility device

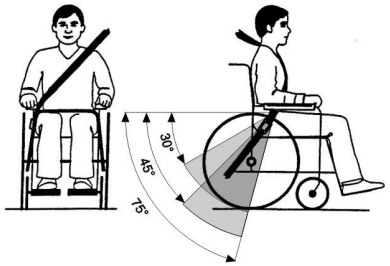
- Even if the mobility device is fitted with a postural belt, this is no substitute for a proper safety belt which complies with ISO 10542 in the transport vehicle. Always use the safety belt installed in the transport vehicle.
- Safety belts must be in contact with the user's body. They must not be held at a distance from the user's body using parts of the mobility device such as armrests or wheels.
- Safety belts must be pulled as tightly as possible without causing the user discomfort.
- Safety belts must not be positioned while twisted.
- Ensure that the third seat belt anchorage point is not fixed directly to the vehicle floor, but to one of the vehicle uprights.

WARNING!
Risk of injury if the mobility device is used as a vehicle seat without a headrest
This can cause the neck to be hyperextended during collisions.

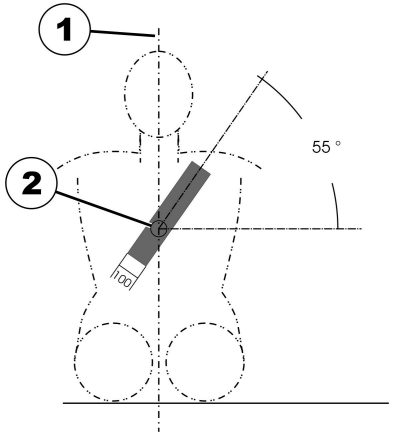
- It is recommended to use a headrest during transport. The Invacare headrest for this mobility device (available as an option) is the perfect solution for use during transport.
- The headrest must be adjusted to the user's ear height.



Seat belts may not be held at a distance from the user's body using parts of the mobility device such as armrests or wheels.



The pelvic belt should be positioned in the area between the user's pelvis and thighs so that it is unobstructed and not too loose. The ideal angle of the pelvic belt to the horizontal is between 45° and 75°. The maximum permissible angle is between 30° and 75°. The angle should never be less than 30°!



The safety belt installed in the transporting vehicle should be applied as shown in the illustration above.

1) Center line of the body

2) Center of the sternum

10.4 Disassembling the mobility device for transport

CAUTION!
Injury hazard
– If you are unable to fasten your mobility device securely in a transport vehicle, Invacare recommends that you do not transport it!

- Before transporting your mobility device, make sure the motors are engaged and that the remote is switched off.
  Invacare strongly recommends that you additionally disconnect or remove the batteries. Refer to 10.4.4 Removing/Installing the battery boxes, page 53.
- Invacare strongly recommends securing the mobility device to the floor of the transporting vehicle.

Proceed as follows to disassemble the mobility device for transport:

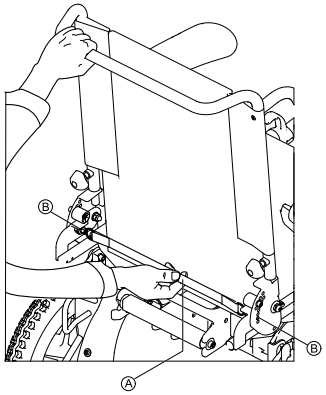
1. Remove the legrests. Refer to 7 Adjusting footrests and legrests, page 35.
2. Fold the backrest forwards. Refer to 10.4.1 Folding the backrest forwards, page 51.
3. Disconnect the remote. Refer to 10.4.2 Disconnecting the remote, page 52.

4. Remove the seat if necessary. Refer to 10.4.3 Removing/Installing the seat, page 52.

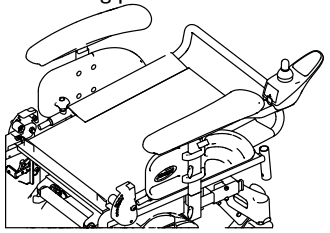
   You can leave the seat on the mobility device and move the mobility device like a trolley by tipping it on the antitippers.

5. Remove the battery boxes. Refer to 10.4.4 Removing/Installing the battery boxes, page 53.
6. Fold up the chassis. Refer to 10.4.5 Folding/Unfolding the chassis, page 54.

10.4.1 Folding the backrest forwards

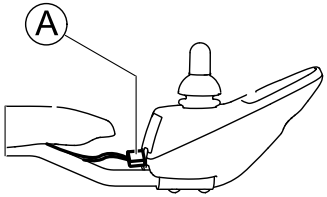
1. 

   Pull the belt Ⓐ to the rear. The locking pins Ⓑ are pulled out of the locking plates. The backrest can now be moved.

2. 

   Push the backrest completely to the front.
3. The locking pins engage automatically.

10.4.2 Disconnecting the remote

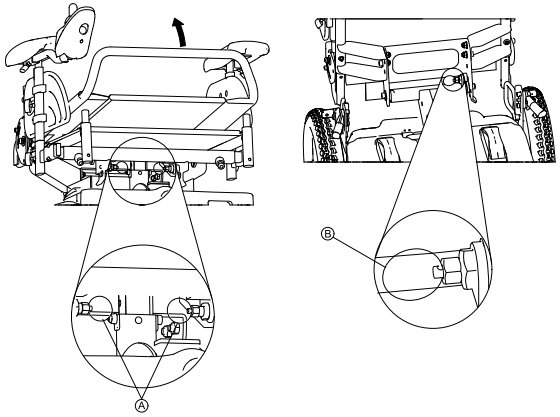
1. Switch off the remote.
2. 

Pull the plug Ⓐ of the remote cable to disconnect the remote.

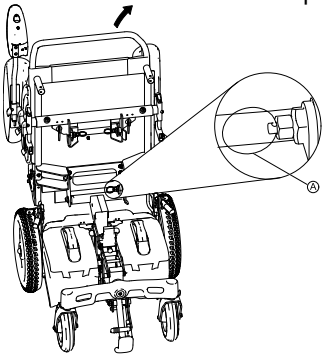
10.4.3 Removing/Installing the seat

CAUTION!
Risk of strains from lifting heavy parts!
– Use proper lifting techniques.

Removing the seat

1. 

On the center post, pull the safety latches Ⓐ and fold up the seat until the rear safety latch Ⓑ on the rear post engages.
The seat is now in the service position.



2. On the rear post, pull the safety latch Ⓐ and remove the seat.

Installing the seat

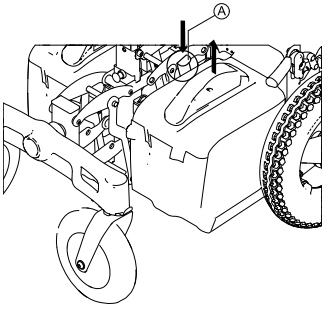
1. Put the seat on the bracket.
2. Fold the seat forward.
3. Make sure the safety latches on the center post engage.

10.4.4 Removing/Installing the battery boxes

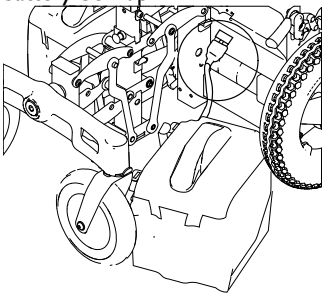
CAUTION!
Risk of strains from lifting heavy parts!
– Use proper lifting techniques.

Turn the front wheels at right angle to the driving direction to have more space when removing or installing the battery boxes.

Removing the battery boxes



1. On the battery box, press down the safety latch Ⓐ and pull the battery box up.



2. Disconnect the battery box.
3. Repeat STEPS 1–2 for the other battery box.

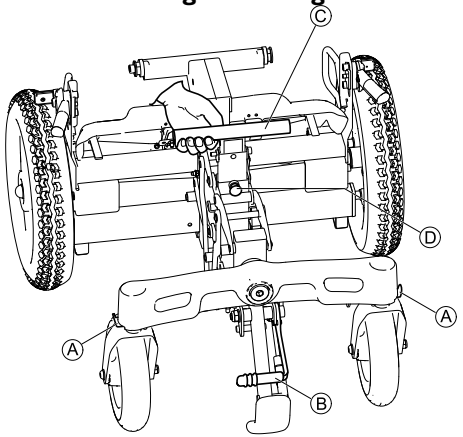
Installing the battery boxes

Risk of pinching the battery cables.
– Make sure you do not pinch the battery cables when installing the battery boxes.

Installing the battery boxes is easier when you tilt the top of the boxes a bit to the inside.

1. Connect the battery box and install it.
2. Repeat STEP 1 for the other battery box.
3. Make sure the safety latches Ⓐ of the battery boxes engage.

10.4.5 Folding/Unfolding the chassis



Folding the chassis

1. Align the casters in driving position.
2. Lock the caster locks Ⓐ, if available.
3. Pull the lever Ⓑ on the curb climber to bring it into park position.
4. Pull up the center post Ⓒ until the safety latch Ⓓ engages.

Unfolding the chassis

1. Pull the safety latch of the center post, then pull the front of the chassis forward.
2. Push down the lever of the curb climber to release it.
3. Open the caster locks.

10.5 Reassembling the mobility device

Proceed as follows to reassemble the mobility device:

1. Unfold the chassis. Refer to 10.4.5 Folding/Unfolding the chassis, page 54
2. Install the battery boxes. Refer to 10.4.4 Removing/Installing the battery boxes, page 53.
3. Install the seat. Refer to 10.4.3 Removing/Installing the seat, page 52
4. Connect the remote. Refer to 10.4.2 Disconnecting the remote, page 52.
5. Fold the backrest upwards. Refer to 10.4.1 Folding the backrest forwards, page 51.
6. Install the legrests. Refer to 7 Adjusting footrests and legrests, page 35.

11 After Use

11.1 Refurbishment

The product is suitable for refurbishment. Actions to be carried out:

- Cleaning and disinfection. Refer to 9 Maintenance, page 43.
- Inspection according to service plan. Consult service instructions, available from Invacare.
- Adaptation to the user. Refer to 6 Adjusting the mobility device to the user's seating posture, page 25.

11.2 Disposal

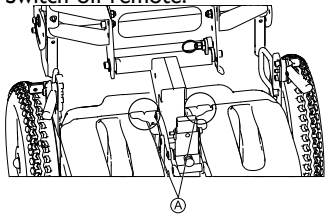
- The equipment wrapping is potentially recyclable.
- The metal parts are used for scrap metal recycling.
- The plastic parts are used for plastic recycling.
- Electric components and printed circuit boards are disposed of as electronic scrap.
- Exhausted or damaged batteries can be returned to your medical equipment supplier or Invacare.
- Disposal must be carried out in accordance with the respective national legal provisions.
- Ask your city or district council for details of the local waste management companies.

12 Troubleshooting

12.1 Resetting the circuit breaker

WARNING!
– NEVER defeat or bypass the circuit breaker.
– ONLY replace with a circuit breaker of the same rating.

Resetting the circuit breaker may be needed if the mobility device does not turn on and the reset button has popped out about 6 mm.

1. Switch off remote.
2. 

To reset, press the circuit breaker button Ⓐ located on the rear of the battery box.

13 Technical data

13.1 Technical specifications

The technical information provided hereafter applies to a standard configuration or represents maximum achievable values within the general tolerances. These can change if accessories are added. The precise changes to these values are detailed in the sections for the respective accessories.

Permissible operating and storage conditions	
Temperature range for operation according to ISO 7176-9:	• -25° … +50 °C
Temperature range for storage according to ISO 7176-9:	• -40° … +65 °C

Electrical system	
Motors	• 2 x 200 W
Batteries	• 2 x 12 V/50 Ah (C20) leakproof/AGM • 2 x 12 V/45 Ah (C20) leakproof/AGM • 2 x 12 V/40 Ah (C20) leakproof/gel • 2 x 12 V/34 Ah (C20) leakproof/AGM
Main fuse	• 40 A resettable circuit breaker for each battery box

Charging device	
Output current	• 8 A ± 8 %
Output voltage	• 24 V nominal (12 cells)
Input voltage	• 200 – 250 V nominal
Operating temperature (surroundings)	• -25° ... +50 °C
Storage temperature	• -40° ... +65 °C

Drive wheel tires	
Tire type	• 317 (12½" x 2¼") puncture-proof

Caster tires	
Tire type	• 200x50 puncture-proof

Driving characteristics	
Speed	• 3 km/h • 6 km/h
Min. braking distance	• 400 mm (3 km/h) • 1000 mm (6 km/h)
Max. safe slope ****	• 6° (10.5 %) according to manufacturer's specifications with 127 kg payload, 4° seat angle, 15° backrest angle
Max. climbable obstacle height	• 60 mm (100 mm with curb climber)
Turning diameter	• 1600 mm (short wheelbase) • 1630 mm (extended wheelbase)
Reversing width	• 1250 mm
Drive range in accordance with ISO 7176-4:2008 *	• 40 km (45/50 Ah batteries) • 32 km (40 Ah batteries) • 27 km (34 Ah batteries)

Dimensions in accordance with ISO 7176–15	
Total height	• 1010 mm (with 480 mm seat height and 490 mm backrest height) • 1120 mm (with 510 mm seat height and 570 mm backrest height)
Max. total width (widest point in parentheses)	• 590 mm (drive wheels) • 640 mm (seat width 50)
Total length (incl. standard legrests)	• 937 mm (short wheelbase) • 963 mm (extended wheelbase)

Dimensions in accordance with ISO 7176–15	
Total length (without standard legrests)	• 747 mm (short wheelbase) • 773 mm (extended wheelbase)
Seat height **	• 480/510 mm
Seat width (armrest adjustment range in parentheses)	• 350 mm (350 - 390 mm) • 400 mm (410 - 450 mm) • 450 mm (460 - 500 mm) • 500 mm (510 - 560 mm)
Seat depth	• 400/430/460/490 mm
Backrest height **	• 490 - 570 mm
Seat cushion thickness	• 50 mm
Backrest angle	• 85°, 95°, 105°, 115°
Armrest height	• 230 - 280 mm (standard armrest) • 205 – 255 mm (inrigged armest)
Seat angle	• 0°, 2°, 4°, 6°, 8°

Footrests and legrests		
Type	**Length**	**Angle**
Standard 80	• 350 - 450 mm	• 80°
Manual elevating	• 350 - 450 mm	• 0 - 70°

Weight * **	
Curb weight	• approx. 79 kg

Component weights	
Seat unit	• approx. 23 kg
Chassis	• approx. 39 kg
45/50 Ah batteries	• approx. 14.3 kg per battery
40 Ah batteries	• approx. 14.5 kg per battery
34 Ah batteries	• approx. 11.1 kg per battery

Payload	
Max. payload	• 127 kg

Axle loads	
Max. front axle load	• 110 kg
Max. rear axle load	• 140 kg

* Note: The drive range of a mobility device is strongly influenced by external factors, such as the charging state of the batteries, surrounding temperature, local topography, road surface characteristics, tire pressure, weight of user, drive style and use of batteries for lighting, servos etc.

The specified values are theoretical maximum achievable values measured according to ISO 7176-4:2008.

** Measured without seat cushion

*** The actual curb weight depends on the fittings your mobility device has been supplied with. Every Invacare mobility device is weighed when leaving the works. Refer to the nameplate for the curb weight (including batteries) measured.

**** Static stability according to ISO 7176-1 = 9° (15,8 %)

Dynamic stability according to ISO 7176-2 = 6° (10,5 %)

Notes

Notes

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